TOWN OF NORTH ATTLEBORO
CONTRIBUTORY RETIREMENT SYSTEM

Actuarial Valuation Report

January 1, 2004

TABLE OF CONTENTS

P:\Actrl\NAttleboro\Val04\[Nattle04_Val.xls]Output

Report Summary:

Highlights	**January 1, 2002**	**January 1, 2004**
Contributions		
Funding Schedule FY 2005	$1,634,541	$1,634,541
Funding Schedule FY 2006	1,678,817	1,924,791
Funded Ratios		
GAS No. 25	81.1%	82.4%
Participants		
Actives	499	515
Inactives	109	106
Retirees and Beneficiaries	163	174
Disabilities	14	17
Total	785	812
Payroll		
Payroll of Active Members	$15,515,521	$16,376,143
Average Payroll	31,093	31,798
Normal Cost		
Employer	748,106	1,029,258
Employee	1,256,306	1,356,764
Administrative Expenses	100,000	125,000
Total	2,104,412	2,511,022
Actuarial Accrued Liabilities		
Actives	30,204,828	33,142,776
Retirees, Beneficiaries, Disabilities and Inactives	19,414,843	24,075,277
Total	49,619,671	57,218,053
Actuarial Value of Assets	40,232,054	47,165,481
Unfunded Actuarial Accrued Liabilities	$9,387,617	$10,052,572

Introduction

This report presents the Town of North Attleboro actuarial valuation findings as of January 1, 2004, under the Commonwealth of Massachusetts Retirement System.

The actuarial valuation is based on:

- Provisions Chapter 32 of the Massachusetts General Laws, "M.G.L", as of January 1, 2004.
- Employee data provided by the Retirement Board
- Asset information reported to the Public Employee Retirement Administration Commission by the Town of North Attleboro Contributory Retirement System
- Actuarial assumptions approved by the Retirement Board

The valuation and appropriation forecast are prepared in accordance with Chapter 32 of the M.G.L. as of January 1, 2004.

The valuation and forecast do not account for:

- Any subsequent changes in the law
- Chapter 32 of the M.G.L., Section 3(8)(c) transfers between systems
- State-mandated benefits
- Cost-of-living increases granted to retired members between 1982 and 1997. The cost of these benefits has been assumed by the State under Proposition Two and One-Half.

Actuarial Experience

In performing the actuarial valuation, various assumptions are made regarding such factors as mortality, retirement, disability, and withdrawal rates as well as both payroll, salary increases, and investment returns. A comparison of the current valuation and the prior valuation is made to determine how closely actual experience corresponded to anticipated occurrences. This analysis of the system provides insight into the overall quality of the actuarial assumptions and helps explain any change in the annual appropriation.

During the last two years, the total unfunded actuarial accrued liability increased by 7.08% to $10,052,572. The increase is the result of net unfavorable actuarial experience during the preceding years. The primary component of the unfavorable experience was an investment return less than the 8.0% assumption.

P:\Actrl\NAttleboro\Val04\[Nattle04_Val.xls]Output

Actuarial Costs and Liabilities:

Normal Costs

The normal cost is the sum of the individual normal costs determined for each member as if the assumptions underlying the cost determinations had been exactly realized. An individual normal cost represents that part of the cost of a member's future benefits which are assigned to the current year as if the costs are to remain level as a percentage of the member's pay. Benefits payable under all circumstances (i.e., retirement, death, disability, and terminations) are included in this calculation. Anticipated employee contributions to be made during the year are subtracted from the total normal cost to determine employer normal cost. The total normal cost is divided by total payroll to determine the normal cost as a percent of pay. The normal cost is shown in Table I.

Table I

	January 1, 2002	January 1, 2004
Superannuation	$1,487,464	$1,695,038
Death	82,657	114,939
Disability	282,512	376,222
Terminations	151,779	199,824
Administrative Expenses	100,000	125,000
Total Normal Cost	2,104,412	2,511,022
% of Pay	13.6%	15.3%
Employee Contributions	1,256,306	1,356,764
% of Pay	8.1%	8.3%
Employer Normal Cost	$848,106	$1,154,258
% of Pay	5.5%	7.0%

Present Value of Actuarial Accrued Liabilities

The actuarial accrued liabilities (AAL) represents today's value of all benefits earned by the actives and inactives. The AAL can be compared to the assets to determine the funded status of the Plan. The value of these earned benefits is shown in Table II below.

Table II

	January 1, 2002	January 1, 2004
Actives		
Superannuations	$26,337,913	$30,451,700
Death	798,649	$856,186
Disability	3,074,368	$2,381,404
Terminations	(6,102)	($546,514)
Retirees and Inactives		
Retirees	16,557,885	19,385,044
Disabled Retirees	2,694,518	4,348,124
Inactives	162,440	342,109
Total	$49,619,671	$57,218,053

P:\Actrl\NAttleboro\Val04\[Nattle04_Val.xls]Output

Present Value of Future Benefits

The present value of future benefits represents today's value of all benefits earned by the inactives as well as all benefits earned and expected to be earned in the coming years by the actives. The difference between the present value of future benefits and the present value of actuarial accrued liabilities is the value of benefits to be earned in the coming years. The value of the total expected benefits is shown in Table III.

Table III

	January 1, 2002	January 1, 2004
Actives		
Superannuation	$42,576,425	$47,933,748
Death	1,728,074	1,994,467
Disability	6,742,821	6,394,409
Terminations	1,515,447	1,465,483
Retirees and Inactives		
Retirees	16,557,885	19,385,044
Disabled Retirees	2,694,518	4,348,124
Inactives	162,440	342,109
Total	$71,977,610	$81,863,384

Funded Status and Appropriations:

Market Value of Plan Assets

The trust fund composition on a market value basis is shown in Table IV.

Table IV

	January 1, 2002	January 1, 2004
Cash equivalents	1,549,946	$1,455,577
Short term investments	0	0
Fixed income securities	17,772,324	19,051,864
Equities	18,297,720	21,882,055
International	2,401,897	3,151,148
Real Estate	0	0
Venture Capital	0	0
Other	0	0
Accounts receivable	91,074	81,334
Accounts payable	(89,785)	(46,333)
Accrued income	208,878	207,407
Total Market Value	$40,232,054	$45,783,053
Total Actuarial Value	$40,232,054	$47,165,481

P:\Actrl\NAttleboro\Val04\[Nattle04_assets.xls]output

Actuarial Value of Assets

The actuarial value of assets is determined by projecting the market value of assets as of the beginning of the prior plan year with the assumed rate of return during that year (8%) and accounting for deposits and disbursements with interest at the assumed rate of return. An adjustment is then applied to recognize the difference between the actual investment return and expected return over a five year period. This preliminary actuarial value is not allowed to differ from the market value of assets by more than 20%. The calculation of the actuarial value of assets as of January 1, 2004 is presented in Table V.

		January 1, 2004
(1)	Market value at January 1, 2003	$38,240,114
(2)	2003 Contributions	$3,242,056
(3)	2003 Benefit Payments	($2,812,006)
(4)	Net interest adjustment at 8% on (1), (2), and (3) to December 31, 2003	$3,076,411
(5)	Expected market value on January 1, 2004 (1) + (2) + (3) + (4)	$41,746,575
(6)	Actual market value on January 1, 2004	$45,783,053
(7)	2003 (Gain) / Loss	($4,036,478)
(8)	80% of 2003 (Gain) / Loss	($3,229,182)
(9)	2002 (Gain) / Loss	$5,579,142
(10)	60% of 2002 (Gain) / Loss	$3,347,485
(11)	2001 (Gain) / Loss	$2,374,325
(12)	40% of 2001 (Gain) / Loss	$949,730
(13)	2000 (Gain) / Loss	$1,571,975
(14)	20% of 2000 (Gain) / Loss	$314,395
(15)	Actuarial value on January 1, 2004, (6) + (8) + (10) + (12) + (14)	$47,165,481
(16)	but not less than 80% nor greater than 120% of (6)	$47,165,481
	Ratio of actuarial value to market value	103.02%

Unfunded Actuarial Accrued Liabilities

Under the Entry Age Normal Actuarial Cost Method, the Actuarial Accrued Liability represents what the accumulated assets would have been as of the valuation date if:

- current plan provisions and assumptions had always been in effect,
- experience conformed exactly to assumptions, and
- the normal cost had been contributed each year since inception.

The actuarial value of the Fund's assets as of the end of the prior year are subtracted from the Actuarial Accrued Liability (AAL) to determine the Unfunded Actuarial Accrued Liability (UAAL) as of the valuation date. Over time, annual pension contributions will accumulate Plan assets equal to the AAL, and the UAAL will be eliminated. Thereafter, annual contributions equal to the normal cost will keep the Plan's assets and liabilities in balance. The UAAL is developed in Table VI.

Table VI

	January 1, 2002	January 1, 2004
Actuarial Accrued Liability	$49,619,671	$57,218,053
Actuarial Assets	40,232,054	47,165,481
Unfunded Actuarial Accrued Liability	$9,387,617	$10,052,572
Funded Status	81.1%	82.4%

Appropriations

The pension appropriation for the upcoming fiscal years have been calculated in accordance with the requirements set forth in Section 22D of Chapter 32 of the Massachusetts General Laws. These amounts were calculated to comply with the June 30, 2028, full funding mandate for all accrued liabilities. The pension appropriation is the sum of the:

- Employer normal cost,
- Increasing amortization of the prior unfunded actuarial accrued liability by June 30, 2028
  $ 9,990,237 over 24 years with 4.5 % increasing payments
- Level amortization of the Early Retirement Incentive unfunded liability by June 30,2008
  $ 62,335 over 14 years
- Interest adjustment for payments deposited two months into the fiscal year.

The pension appropriation is shown in Table VII.

Table VII

	January 1, 2002	January 1, 2004
Normal cost	$848,106	$1,154,258
Amortization payment of the accrued liability	569,292	391,533
Amortization payment of ERI liability	0	7,001
Total cost	$1,417,398	$1,552,792
% of Pay	9.1%	9.5%
Fiscal 2005 cost	$1,634,541	$1,634,541
Fiscal 2006 cost	$1,678,817	$1,924,791
Fiscal 2007 cost	$1,731,738	$1,993,606

Appropriation Forecast

The following exhibit forecasts employer and employee contributions over the next 32 years under the adopted funding schedule.

Note that the forecast is based upon an "open group" method. This method assumes that sufficient employees will be hired each year to keep the number constant. The total payroll of the system is expected to increase 4.5% per year. The employee contribution rate is expected to increase to 10.5% by 2028 as members contributing base percentages 5%, 7%, and 8% are replaced by new members, whose base contribution is 9%. Payments are assumed to be made at the beginning of the year.

The employer total cost is expected to increase during the next 24 years until the unfunded liabilities are completely paid off, at which time only the normal cost will remain. The total cost represents 10.0% of payroll, increasing next year to 11.2%, decreasing to 9.0% by the time the unfunded liabilities are fully paid off, leaving only a normal cost of 5.1% thereafter. The decrease in the cost as a percentage of payroll is a result of the increase in member deductions.

P:\Actrl\NAttleboro\Val04\[Nattle04_Val.xls]Approp. Results

Appropriation Forecast
(amounts in thousands)

Fiscal Year Ending	Payroll*	Employee Contribution	Employer Normal Cost with Interest	Amortization Payments with Interest	Employer Total Cost with Interest	Employer Total Cost % of Payroll	Funded Ratio %**
2005	$16,376	$1,357	$1,215	$420	$1,635	10.0	82.4
2006	17,113	1,434	1,252	672	1,925	11.2	83.0
2007	17,883	1,516	1,291	703	1,994	11.2	84.0
2008	18,688	1,602	1,330	734	2,064	11.0	84.9
2009	19,529	1,693	1,370	767	2,137	10.9	85.8
2010	20,408	1,789	1,411	801	2,212	10.8	86.6
2011	21,326	1,890	1,453	837	2,290	10.7	87.5
2012	22,286	1,997	1,495	874	2,370	10.6	88.3
2013	23,289	2,109	1,539	913	2,452	10.5	89.1
2014	24,337	2,227	1,584	954	2,538	10.4	89.9
2015	25,432	2,352	1,629	997	2,626	10.3	90.6
2016	26,576	2,483	1,675	1,041	2,717	10.2	91.3
2017	27,772	2,622	1,723	1,088	2,810	10.1	92.0
2018	29,022	2,768	1,771	1,136	2,907	10.0	92.7
2019	30,328	2,922	1,820	1,180	2,999	9.9	93.4
2020	31,692	3,084	1,869	1,233	3,102	9.8	94.1
2021	33,119	3,254	1,920	1,288	3,208	9.7	94.7
2022	34,609	3,434	1,971	1,346	3,318	9.6	95.4
2023	36,166	3,623	2,023	1,407	3,430	9.5	96.0
2024	37,794	3,823	2,076	1,470	3,546	9.4	96.7
2025	39,495	4,033	2,130	1,536	3,666	9.3	97.3
2026	41,272	4,254	2,184	1,605	3,789	9.2	98.0
2027	43,129	4,487	2,238	1,678	3,916	9.1	98.7
2028	45,070	4,732	2,293	1,753	4,046	9.0	99.3
2029	47,098	4,945	2,396	0	2,396	5.1	100.0
2030	49,217	5,168	2,504	0	2,504	5.1	100.0
2031	51,432	5,400	2,617	0	2,617	5.1	100.0
2032	53,747	5,643	2,735	0	2,735	5.1	100.0
2033	56,165	5,897	2,858	0	2,858	5.1	100.0
2034	58,693	6,163	2,986	0	2,986	5.1	100.0
2035	61,334	6,440	3,121	0	3,121	5.1	100.0
2036	64,094	6,730	3,261	0	3,261	5.1	100.0

* Calendar basis

** As of beginning of the Fiscal Year

P:\Actrl\NAttleboro\Val04\[Nattle04_Val.xls]Output

GAS No. 25 and GAS No. 27

Effective for periods beginning after June 15, 1997, the Governmental Accounting Standards Board (GASB) requires the disclosure of pension related liabilities for public employer financial statements in accordance with Statements 25 and 27. These statements, which replace GASB Statement No. 5, must be adhered to by any public employee retirement system that follows Generally Accepted Accounting Principles (GAAP).

These disclosures are intended to establish a reporting framework that distinguishes between:

- current financial information about plan assets and financial activities,
- actuarially determined information from a long-term perspective,
- the funded status of the plan, and
- progress being made in accumulating sufficient assets to pay benefits when due.

Footnote disclosures required by GASB Statement No. 25 and 27 include a description of the plan, a summary of significant accounting policies, and information about contributions, legally required reserves, and investment concentrations. As a result of the oversight of the Public Employees Retirement Administration Commission (PERAC) and the conversion of unpaid contributions to pension related debt, the Net Pension Obligation (NPO) as required by Statement No. 27 will effectively always be equal to $0. The required disclosure information is shown in Table VIII.

Table VIII

		January 1, 2002	January 1, 2004
(1)	Actuarial Accrued Liability	$49,619,671	$57,218,053
(2)	Actuarial Value of Assets	40,232,054	47,165,481
(3)	Unfunded Actuarial Accrued Liability	9,387,617	10,052,572
(4)	Funded Ratio (2)/(1)	81.1%	82.4%
(5)	Covered Payroll	$15,515,521	$16,376,143
(6)	UAAL as a percentage of payroll: (3)/(5)	60.5%	61.4%
(7)	Annual Required Contribution (ARC)	$1,528,144	$1,634,541
(8)	Net Pension Obligation	$0	$0

P:\Actrl\NAttleboro\Val04\[Nattle04_Val.xls]PERAC Ann'l Stmt

PERAC Annual Statement
APPENDIX PAGE 3
ACTUARIAL VALUATION AND ASSUMPTIONS

The most recent actuarial valuation of the System was prepared by Mellon Human Resources & Investor Solutions as of January 1, 2004.

The normal cost for employees on that date was:	$1,356,764	8.3% of pay
The normal cost for the employer was:	1,029,258	6.3% of pay

The actuarial liability for active members was:	$33,142,776
The actuarial liability for retired members was:	24,075,277
Total actuarial accrued liability:	57,218,053
System assets as of that date:	47,165,481
Unfunded actuarial accrued liability:	$10,052,572

The ratio of system's assets to total actuarial liability was 82.4%

The principal actuarial assumptions used in the valuation are as follows:

Investment Return:	8.0%
Rate of Salary Increase:	5.5%

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded Actuarial Accrued Liability (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a percent of Covered Payroll (b-a)/c
01/01/03	$47,165,481	$57,218,053	$10,052,572	82.4%	$16,376,143	61.4%
01/01/02	40,232,054	49,619,671	9,387,617	81.1%	15,515,521	60.5%
01/01/00	37,496,091	41,776,394	4,280,303	89.8%	13,315,066	32.1%
01/01/98	29,744,805	35,015,145	5,270,340	84.9%	11,451,863	46.0%
01/01/97	24,406,100	29,456,842	5,050,742	82.9%	10,355,645	48.8%

Attach Copy of Current Approved Funding Schedule

EXHIBITS

P:\Actrl\NAttleboro\Val04\Report\[ACT1.XLS]Actives

Age/Service Distribution with Salary as of January 1, 2004

Attained Age	Average Salary <5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
< 20	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
20-24	9	0	0	0	0	0	0	0	0	9
	23,132	0	0	0	0	0	0	0	0	23,132
25-29	27	5	0	0	0	0	0	0	0	32
	26,668	46,135	0	0	0	0	0	0	0	29,710
30-34	17	16	13	0	0	0	0	0	0	46
	33,844	43,074	40,267	0	0	0	0	0	0	38,870
35-39	26	10	8	14	0	0	0	0	0	58
	23,728	36,632	44,353	52,644	0	0	0	0	0	35,777
40-44	30	18	8	24	3	0	0	0	0	83
	18,773	27,806	48,940	50,842	50,286	0	0	0	0	34,052
45-49	33	23	6	15	7	2	0	0	0	86
	21,487	26,233	25,764	38,606	41,205	43,083	0	0	0	28,148
50-54	24	22	12	13	5	10	4	0	0	90
	15,914	26,056	32,546	38,448	50,179	51,879	34,115	0	0	30,574
55-59	13	18	10	14	2	3	2	1	0	63
	28,043	27,786	25,759	32,506	37,317	47,792	72,896	97,897	0	32,366
60-64	5	10	4	4	3	2	3	0	0	31
	22,401	26,807	32,170	26,103	53,949	29,503	40,224	0	0	30,796
65-69	3	2	0	3	0	1	1	1	0	11
	19,207	32,355	0	28,019	0	35,834	27,868	5,907	0	25,091
70+	0	2	1	0	1	1	0	1	0	6
	0	7,473	33,339	0	15,245	6,761	0	15,410	0	14,283
Total Employees	187	126	62	87	21	19	10	3	-	515
Average Salary	23,042	30,247	36,041	42,295	44,853	44,733	43,079	39,738	-	31,798

P:\Actrl\NAttleboro\Val04\Report\[RET1.XLS]Retirees

Retiree Distribution as of January 1, 2004

Attained Age	Number of Employees Male	Female	Total	Total Payments Male	Female	Total
< 20	0	0	0	0	0	0
20-24	0	0	0	0	0	0
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	1	0	1	11,970	0	11,970
40-44	0	0	0	0	0	0
45-49	1	0	1	8,068	0	8,068
50-54	2	0	2	47,118	0	47,118
55-59	6	14	20	167,327	160,756	328,083
60-64	9	10	19	213,211	82,743	295,954
65-69	12	14	26	277,479	159,289	436,769
70-74	13	12	25	284,586	73,574	358,159
75-79	17	14	31	276,063	135,028	411,091
80-84	11	11	22	111,413	64,895	176,308
85-89	12	12	24	95,694	63,685	159,380
90-94	2	0	2	11,504	0	11,504
95-99	0	1	1	0	1,925	1,925
Total	86	88	174	1,504,432	741,896	2,246,328
Average (Age/Payment)	73.3	72.5	72.9	17,493	8,431	12,910
Frequency Percent	49.4	50.6	100	67	33	100

P:\Actrl\NAttleboro\Val04\Report\[DIS1.XLS]Disabled

Disabled Retiree Distribution as of January 1, 2004

	Number of Employees			Total Payments		
Attained Age	Male	Female	Total	Male	Female	Total
< 20	0	0	0	0	0	0
20-24	0	0	0	0	0	0
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	1	0	1	51,294	0	51,294
40-44	0	0	0	0	0	0
45-49	1	0	1	18,452	0	18,452
50-54	1	0	1	74,131	0	74,131
55-59	2	0	2	52,996	0	52,996
60-64	6	0	6	131,328	0	131,328
65-69	0	0	0	0	0	0
70-74	4	0	4	92,565	0	92,565
75-79	1	0	1	10,990	0	10,990
80-84	1	0	1	13,889	0	13,889
85-89	0	0	0	0	0	0
90-94	0	0	0	0	0	0
95-99	0	0	0	0	0	0
Total	17		17	445,645		445,645
Average (Age/Payment)	63.3	0	63.3	26,214	0	26,214
Frequency Percent	100	.	100	100	.	100

EXHIBIT 4 - CASHFLOW FORECAST:

The following is a 30 year forecast of benefit payments net of state reimbursable COLA payments, Contribution Income and Investment Returns.

Plan Year Ending	Benefit Payments	Employee Contributions	Employer Contributions	Investment Returns	Net change in plan assets
2004	$2,829	$1,357	$1,635	$3,678	$3,841
2005	3,002	1,434	1,925	3,986	4,343
2006	3,182	1,516	1,994	4,329	4,657
2007	3,354	1,602	2,064	4,697	5,009
2008	3,534	1,693	2,137	5,093	5,389
2009	3,713	1,789	2,212	5,519	5,807
2010	3,939	1,890	2,290	5,977	6,218
2011	4,192	1,997	2,370	6,467	6,642
2012	4,498	2,109	2,452	6,990	7,053
2013	4,821	2,227	2,538	7,544	7,488
2014	5,184	2,352	2,626	8,132	7,926
2015	5,614	2,483	2,717	8,753	8,339
2016	6,086	2,622	2,810	9,405	8,751
2017	6,571	2,768	2,907	10,090	9,194
2018	7,105	2,922	2,999	10,809	9,625
2019	7,689	3,084	3,102	11,560	10,057
2020	8,278	3,254	3,208	12,346	10,530
2021	8,848	3,434	3,318	13,171	11,075
2022	9,420	3,623	3,430	14,040	11,673
2023	10,012	3,823	3,546	14,956	12,313
2024	10,626	4,033	3,666	15,923	12,996
2025	11,214	4,254	3,789	16,946	13,775
2026	11,766	4,487	3,916	18,033	14,670
2027	12,313	4,732	4,046	19,192	15,657
2028	12,853	4,945	2,396	20,381	14,869
2029	13,330	5,168	2,504	21,555	15,897
2030	13,754	5,400	2,617	22,813	17,076
2031	14,101	5,643	2,735	24,169	18,446
2032	14,408	5,897	2,858	25,636	19,983
2033	14,891	6,163	2,986	27,220	21,478

amounts in thousands

EXHIBIT 5 – SUMMARY OF PLAN PROVISIONS:

This summary is prepared in accordance with Chapter 32 as of January 1, 2004, and does not take into account any subsequent changes.

1. Administration

Each of the 107 contributory retirement systems for public employees for the Commonwealth of Massachusetts are guided by the applicable provisions of Chapter 32 of the Massachusetts General Laws and other applicable statutes. Although these boards operate semi-independently, there is a uniform set of rules governing benefits, eligibility, contributions, financing, and accounting.

2. Participation

Participation is mandatory for all full-time employees whose employment commences prior to age 65. Eligibility with respect to part-time, professional, temporary, or intermittent employment is governed by the local board. Membership is optional for certain elected officials, State officials appointed by the Governor, and certain hospital interns.

There are four classes of membership as follows:

(i) Group 1: Most general employees in State and local government

(ii) Group 2: Certain specified hazardous duty positions

(iii) Group 3: State police officers and inspectors

(iv) Group 4: Local police officers, firefighters, and designated employees of the municipal light department.

For members in more than one group, participation will be proportional.

3. Salary

Salary is defined as gross regular compensation. Salary does not include bonuses, overtime, severance pay, unused sick leave credit, or other similar compensation.

4. Member Contributions

Member contributions vary depending upon date hired as follows:

Date of Hire	**Member Contribution Rate**
Prior to 1975	5.0% of Salary
1975 to 1983	7.0% of Salary
1984 to 1996	8.0% of Salary
1996 and Later plus	9.0% of Salary
1979 and Later	2.0% of Salary in excess of $30,000

5. Average Salary

Average salary is used to determine a participant's benefit. It is defined as the average salary during the three consecutive-year period that produces the highest average. (Alternatively, if a greater amount results, it is the average rate of salary earned during the period or periods, whether or not consecutive, that constitutes the last three years preceding retirement.)

6. Creditable Service

In general, creditable service is awarded during the period in which a member contributes to the retirement system.

7. Service Retirement

a. Eligibility:

For an employee to be eligible for service retirement (also referred to as superannuation), one of the following conditions must be met:

(i) completion of 20 years of service

(ii) for an employee hired prior to January 1, 1978, attainment of age 55 as an active member

(iii) for an employee hired on or after January 1, 1978, attainment of age 55 as an active member and completion of ten years of service

(iv) if an employee is a State Police officer (Group 3), attainment of age 50

b. Benefit Amount:

The retirement allowance is determined as a product of the participant's Benefit Rate times Average Salary times Creditable Service, where Benefit Rate is determined from the following table:

Age at	Percentage of Average Salary		
Retirement	Group 1	Group 2	Group 4
65 or Over	.025	.025	.025
64	.024	.025	.025
63	.023	.025	.025
62	.022	.025	.025
61	.021	.025	.025
60	.020	.025	.025
59	.019	.024	.025
58	.018	.023	.025
57	.017	.022	.025
56	.016	.021	.025
55	.015	.020	.025
54	.014	.014	.024
53	.013	.013	.023
52	.012	.012	.022
51	.011	.011	.021
50	.010	.010	.020
49	.009	.009	.019
48	.008	.008	.018
47	.007	.007	.017
46	.006	.006	.016
45	.005	.005	.015
44	.004	.004	.004
43	.003	.003	.003
42	.002	.002	.002
41	.001	.001	.001

For Group 3 (State Police), the benefit is 50% of the participant's final year's rate of regular salary, plus an additional 1% for each year of service in excess of 20 years. In addition, for veterans (all groups) there is an additional benefit of $15 per year for each year of service, up to a maximum of 20 years of service.

8. Deferred Vested Retirement

a. Eligibility:

A participant who has completed ten or more years of creditable service is eligible for a deferred vested retirement benefit. If termination is involuntary, the participant is vested after six years.

b. Benefit Amount:

The participant's accrued benefit is payable commencing at age 55, or may be deferred until later at the employee's option.

c. Refund of Contributions:

In lieu of the deferred pension benefit, a member may elect to receive a refund of their accumulated contributions. Members with ten or more years of service are entitled to 100% of the credited interest on their contributions. Members with five to ten years of service are entitled to 50% of the credited interest on their contributions. No credited interest is provided for members with less than five years of service.

9. Accidental Disability

a. Eligibility:

Participants are eligible for an accidental disability benefit, regardless of service or age, if they become permanently and totally incapacitated for further duty as a result of personal injury sustained while in the performance of duties.

b. Benefit Amount:

The accidental disability amount is 72% of annual salary plus $450 per year for each child plus an additional annuity based upon accumulated Member Contributions with credited interest.

10. Ordinary Disability

a. Eligibility:

An ordinary disability occurs when a member becomes permanently and totally disabled due to sickness or injury that is not job related. In order to be eligible for an ordinary disability benefit, a member must have ten years of service (and be less than age 55).

b. Benefit Amount:

The ordinary disability amount is equal to the accrued retirement benefit as if the member were age 55. If the member was a veteran, the benefit is 50% of the member's final rate of Salary during the preceding 12 months, plus an annuity based upon accumulated Member Contributions plus credited interest. If the participant is over age 55, he will receive not less than the superannuation allowance to which he is entitled.

11. Survivor Benefits

a. Occupational Death:

The survivors of a member who dies due to an occupational injury will be entitled to a lump sum return of contributions plus a pension benefit equal to 72% of the participant's annual Salary.

b. Non-Occupational Death:

Upon the death of a member other than due to an occupational injury, the designated beneficiary will be entitled to a retirement benefit as if Option C had been elected with a minimum of $250 per month to the surviving spouse, plus $120 for the first child, plus $90 for each additional child. If no beneficiary is designated and if the employee worked two years, and is married at least one year, the spouse may elect benefits. If there is no designated beneficiary or surviving spouse, then member contributions are returned. If there are dependent children but no surviving spouse, they may elect minimum survivor benefits of $250 per month plus $120 for the first child and $90 for each additional child.

c. Refund of Contributions:

Upon the death of a member not entitled to survivor benefits, the beneficiary is entitled to a refund of all member contributions with interest.

12. Cost-of-Living Increases

In accordance with the adoption of Chapter 17 of the Acts of 1997, the granting of a cost-of-living adjustment will be determined by an annual vote by the Retirement Board. The amount of increase will be based upon the Consumer Price Index, limited to a maximum of 3.0%, beginning on July 1. All retirees, disabled retirees, and beneficiaries who have been receiving benefits payments for at least one year as of July 1 are eligible for the adjustment. The maximum amount of pension benefit subject to a COLA is $12,000. All COLAs granted to members after 1981 and prior to July 1, 1998 are deemed to be an obligation of the State and are not the liability of the Retirement System.

13. Postretirement Death Benefits

Any benefits following the death of a member after retirement are based upon the form of benefit the participant elected at the time of retirement. There are three available forms as follows:

(i) Option A – Life annuity

(ii) Option B – Life annuity with death benefit equal to excess of member contributions plus credited interest to retirement over annuity benefit paid to member

(iii) Option C – Life annuity with 66-2/3% of benefit continued after death of member to designated joint annuitant

EXHIBIT 6 – ACTUARIAL METHODS AND ASSUMPTIONS:

The actuarial cost method, factors, and assumptions used in determining cost estimates are presented below.

1. Member Data

The member data used in the determination of cost estimates consist of pertinent information with respect to the active, inactive, retired, and disabled members of the employer as supplied by the employer to the actuary.

2. Valuation Date

January 1, 2004.

3. Actuarial Cost Method

The costs of the Plan have been determined in accordance with the individual entry age normal actuarial cost method.

4. Rate of Investment Return

It is assumed that the assets of the fund will accumulate at a compound annual rate of 8.0% per annum.

5. Salary Scale

It is assumed that salaries including longevity will increase at a rate of 5.5% per year.

6. Cost-of-Living Increases

Cost-of-living increases have been assumed to be 3.0% of the lesser of the pension amount and $12,000 per year.

7. Value of Investments

Assets held by the fund are valued at market value as reported by the Public Employees'

Retirement Administration Commission (PERAC). The actuarial value of assets is determined using a five-year smoothing of unrealized gains and losses.

8. Annual Rate of Withdrawal Prior to Retirement

Based on an analysis of experience, the assumed annual rates of withdrawal may best be illustrated by the following rates at the following ages:

Service	General Employees	Police and Fire Employees
0	0.1500	0.0150
10	0.0540	0.0150
20	0.0200	0.0000
30	0.0000	0.0000

9. Annual Rate of Mortality

It is assumed that both preretirement and postretirement mortality are represented by the RP-2000 Mortality Table for males and females. Mortality for disabled members is represented by the RP-2000 Mortality Table set forward two years for all disabled members.

10. Service Retirement

Based on an analysis of experience, the assumed annual retirement rates are illustrated at the following ages:

Age	Male General Employees	Female General Employees	Male and Female Police and Fire Employees
50	0.0100	0.0150	0.02000
51	0.0100	0.0150	0.02000
52	0.0100	0.0200	0.02000
53	0.0100	0.0250	0.05000
54	0.0200	0.0250	0.07500
55	0.0200	0.0550	0.15000
56	0.0250	0.0650	0.10000
57	0.0250	0.0650	0.10000
58	0.0500	0.0650	0.10000
59	0.0650	0.0650	0.15000
60	0.1200	0.0500	0.20000
61	0.2000	0.1300	0.20000
62	0.3000	0.1500	0.25000
63	0.2500	0.1250	0.25000
64	0.2200	0.1800	0.30000
65	0.4000	0.1500	1.00000
66	0.2500	0.2000	1.00000
67	0.2500	0.2000	1.00000
68	0.3000	0.2500	1.00000
69	0.3000	0.2000	1.00000
70	1.0000	1.0000	1.00000

11. Annual Rate of Disability Prior to Retirement

Based on an analysis of experience, the assumed annual rates of disability may best be illustrated by the following probabilities at the following ages:

Attained Age	General Employees	Police and Fire Employees
20	0.0001	0.0001
30	0.0003	0.0003
40	0.0010	0.0030
50	0.0019	0.0125

In addition, it is assumed for the general employees that 45% of all disabilities are ordinary (55% are service connected). For police and fire employees, 10% of all disabilities are assumed to be ordinary (90% are service connected).

12. Family Composition

It is assumed that 80% of all members will be survived by a spouse and that females (males) are three years younger (older) than members.

13. Administrative Expenses

The normal cost is increased by an amount equal to the anticipated administrative expenses for the upcoming fiscal year. The amount for fiscal year 2004 is $125,000 and is anticipated to increase at 4.5% per year.

EXHIBIT 7 – GLOSSARY OF TERMS:

This glossary summarizes the technical terms contained in this report.

1. <u>Actuarial Accrued Liability</u>

That portion of the Actuarial Present Value of plan benefits that is not provided for by future employer Normal Costs or employee contributions.

2. <u>Actuarial Assumptions</u>

Assumptions as to the occurrence of future events affecting the Retirement System such as:

- Rates of investment returns
- Increases in a member's salary
- Inflation
- The probability of mortality, turnover, disablement
- Retirement at each age and other relevant items

3. <u>Actuarial Cost Method</u>

A procedure for allocating the Actuarial Present Value of pension plan benefits between Normal Cost and Actuarial Accrued Liability.

4. <u>Actuarial Present Value</u>

The single sum amount required at the valuation date that is required to provide for anticipated future events based upon the terms of the plan and the Actuarial Assumptions.

5. <u>Forecast</u>

A projection of future benefit payments or contribution requirements based upon the terms of the plan, the current asset amounts, the Actuarial Assumptions, and additional assumptions as to the replacement of terminating employees with new employees.

6. Normal Cost

That portion of the Actuarial Present Value of future benefits that is assigned to the current year.

7. Unfunded Actuarial Accrued Liability

That portion of the Actuarial Accrued Liability that is not provided for by current actuarial value of assets.

8. Valuation Method

The method used to divide the cost of future benefits among the Actuarial Accrued Liability, the current year's Normal Costs, and future years' Normal Costs. The resulting current funding requirement is then determined as the current year's Normal Cost plus the payment necessary to amortize the Unfunded Actuarial Liability.

9. Vested Liability

That portion of the Actuarial Present Value of Accrued Benefits that a member would be entitled to if the member terminated employment with the employer as of the valuation date.

CERTIFICATION:

This report fairly represents the actuarial position of the Town of North Attleboro Contributory Retirement System contributing as of January 1, 2004, in accordance with generally accepted actuarial principles applied consistently with the preceding valuation. In our opinion, the actuarial assumptions used to compute actuarial accrued liability and normal cost is reasonably related to plan experience and to reasonable expectations, and represents our best estimate of anticipated plan experience.

Mellon Human Resources and Investor Solutions

____

Daniel W. Sherman, ASA, MAAA
Enrolled Actuary No. 99-4086

August 2004

BREAKOUTS

P:\Actrl\NAttleboro\Val04\[Nattle04_Val.xls]Actuarybreak2

Breakouts

		Total	All Others	Housing
(1)	Payroll of Active Participants	16,376,143	$16,088,382	$287,761
	Percent of Total Payroll	100.00%	98.24%	1.76%
(2)	Total Employer Contributions			
	(a) ERI	7,001	0	7,001
	(b) Remaining Amortizations	391,533	384,642	6,891
	(c) Employer Normal Cost	1,029,258	1,011,143	18,115
	(d) Administrative Expenses	125,000	122,800	2,200
	(e) Total Appropriation	1,552,792	1,518,585	34,207
(3)	Fiscal 2006 Appropriation	1,924,791	$1,883,675	$41,116
	Percent of Total Appropriation	100.00%	97.86%	2.14%
(5)	Fiscal 2007 Appropriation	1,993,606	$1,951,279	$42,327
	Percent of Total Appropriation	100.00%	97.88%	2.12%
(6)	Fiscal 2008 Appropriation	2,064,042	$2,020,475	$43,567
	Percent of Total Appropriation	100.00%	97.89%	2.11%

Appropriations are allocated based on the ratio of the division payroll to the total payroll.